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ETHNOBOTANICAL USES OF HERBARIA

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INTRODUCTION

Primitive people used plants for their sustenance and well-being. A rich plant lore has been passed on by word of mouth and by tradition, from generation to generation of tribals in different parts of the country. Modern research has often borne out the efficacy of many of the crude plant drugs used by the aborigines. The botanist is naturally interested in obtaining such data from the tribals and recording it for further work. Apart from such current direct ethnobotanical observations, it is also possible to scan through the specimens deposited in large herbaria and from the field notes on such specimen, gather data that may prove quite significant. Such efforts have been made by Schultes (1960, 1962) and Altschul (1967, 1968, 1970, 1975, 1977) who have made significant contributions in the role of ethnobotanical studies through herbaria and reported economic and medicinal uses of plants, which were not known earlier. In India also, similar studies have been taken up. Notes found on the old herbarium sheets would be of undoubted value for ethnobotanical purposes.

There are various reasons why collection of data from old herbarium sheets should be made. These are : (1) They often provide important information about plant uses which may have been generally ignored in published literature; (2) They may provide source data for learning the materia medica of the primitive people; (3) They enable varification of current or continued use of such plants by present day tribals; (4) The scientists can visit the original locality at the proper time for collection of authentic fresh materials for further study. This may also lead chemotaxonomists to correlate the affinities of plant groups and prepare a chemotaxonomic survey scheme. The detection of alkaloids in the herbarium materials (Raffauf and Altschul 1968) or ethnogynaecological notes recorded from the herbarium sheets (Altschul, 1970) suggest adequate scope for further research in these lines.

Uses of herbaria in ethnobotanical studies have therefore been taken up.

The authors have followed the methods of Altschul Siri Von Reis (1975) who studied the specimens in the herbaria of the Harvard University (GH) and of New York Botanical Garden (NY). Specimens in Calcutta National Herbarium (CAL), in the herbaria of the Industrial Section of the Indian Museum, Calcutta (ISIM) and Forest Research Institute, Dehra Dun (DD) have been scrutinised in detail and notes of relevant interest extracted. These are presented below. Review of the data on the herbarium sheets showed that the extent of notes was widely varying with fairly elaborate information including the plant part and the specific purpose for which it was used, on the one hand to very short vague notes like "Used in medicine" However, even very cryptic field notes indicating a distant economic or medicinal significance have been included in this list with the possibility that such data may lead to further enquiries. The data presented here are gathered from herbarium material from India and adjacent countries, irrespective of other publications.

The sequence followed is : botanical name of the plant with its local name; locality, notes of ethnobotanical interest; collector number (Accession No., where there is no collection number). Data of collection has been included wherever available in view of its significance concerning the period in which the plant material was noticed to be of ethnobotanical interest. In cases where the herbarium material of the same species from different localities have been examined and different uses recorded, such data have been presented under the concerned localities in alphabetical sequence.

Considering that the emphasis in this paper is on notes of interest in old herbarium sheets and the fact that such sheets often carry names that were considered at that time for those plants no attempt has been made to bring nomenclature up-to-date. The old names will facilitate reference to earlier literature and connected specimens. Seven families : Ranunculaceae, Dilleniaceae, Annonaceae, Polygalaceae, Caryophyllaceae, Apocynaceae, Asclepiadaceae, and the genus *Solanum* of the family Solanaceae have been covered in this account.

RANUNCULACEAE

Anemone rivularis Ham. *Sashorts, Damdhora*
Tepovally, Punjab.

Specimen No. 1.
Makes a cooling plaster for broken knee joint of cattle.
G. Watt., 3374, 21.7.1887. (ISIM).

Specimen No. 2.
Leaves when rubbed emit powerful pungent odour of mustard. A poultice of the leaves is applied to the surface of sores to destroy maggots.
G. Watt., 7931, (ISIM)

Aquilegia glauca Lindl.
Kulu, N. W. Himalaya.
Sweet scented.
M. Nath, 6398, 30.7.1935 (CAL).

Clematis cadmia Buch.-Ham. *Bon Jelaki, Bon Maris* Bilasipara, Assam.
Fruits and roots eaten as a condiment, instead of chillies.
C.E.C. Fischer s.n., 24.2.1880 (CAL).

C. orientalis L. *Aveshkh*
Harbui Hill, Baluchistan.
Fodder for goats; leaves are mixed with green powder after they are well ground.
H. Buller, R.E.P. 19538, 27/28.5.1903 (ISIM).

C. smilacifolia Wall. *Tagam mirap (Mismi)*
Paya to Shoeliang (Lohit) N.E..F.A.
Used by the Mishmis for cold, cough, influenza and malaria.
R. S. Rao, 10854 (CAL).

Ranunculus diffusus DC. *Bat miang ser*
Shillong, Assam.
Used for a peculiar kind of boil.
H. G. Carter, 1163, (CAL).

R. sceleratus L. *Pullenda.*
Banda, N.W.P.
To reduce coins to ashes in medicine.
Mrs. A. S. Bell, 93, 19.2.1901 (CAL).

DILLENIACEAE

Dillenia aurea Sm. *Karkot.*

Manbhum, Bengal and Bihar border State.
Succulent and persistent calyx is eaten as vegetable, the bark is given in urinary complaints.
J. Campbell, s.n. 8698 (CAL).

Delima sermentosa L. *Ou-lata*

Dhansiri Bank u.s.f., Dist. Sibsagar, Assam.
Cut sections of the stem give good potable water.
U. N. Kanjilal, 1622, 22.6.1910 (CAL).

ANNONACEAE

Artabotrys kurzii Hk.f. & Th.

Rengun
Used in Medicine.
234, (DD).

Cyathocalyx martabanicus Hk.f. & Th.

Lushai Hills.
Flesh of ripe fruit eaten.
Hruroth, 4672, (DD).

Desmos dumosa (Roxb.) Stapf

Jaintia Hills
Somewhat aromatic.
U. N. Kanjilal, 18641 (DD).

Miliusa roxburghiana (Wall. ex Griffith) Hk.f. & Th.

Jaintia or Molagul Hillock, (Burkhel village) Dist. Sylhet (or Kachar), Assam.
Leaves used as smelling salt in headache.
U. N. Kanjilal, 4708, 12.11.1914 (CAL).

Polyalthia lateriflora King

Burma.
Good for planks and cast shafts. (DD).

P. simiarum Hk.f. & Th.

Burma.
Fuel and plank. (DD).

POLYGALACEAE

Polygala arillata Buch.-Ham. *Cleem-Soom-Creem*

Sikkim (Himalaya) below 4000 ft.
Root used for T.B. treatment.
Forest Manager (CAL).

Xanthophyllum affine Korth

Kyanklow
The plant is used in brewing. The bark is put into yeast bath. The bark is slightly astringent to taste.
I. H. Burkill, 28269, 8.6.1907 (ISIM).

X. flavascens Roxb. *Ajeusak, gandi*

Kanbe
Leaves are edible.
P. Khant, 1117, 10.2.1949 (DD).

CARYOPHYLLACEAE

Acanthophyllum macrodon Edgew. *Bekh*

Khorasan, Afghanistan.
The stem and root stocks are collected and sold in the markets, being employed in lieu of soap for washing clothes, wool etc.
J. E. T. Aitchison, 673, 17.6.1885 (CAL).

Gypsophila paniculata L. *Saosafed*

Badghis, Khorasan, Afghanistan
"Bekh"—Roots employed as soap.
J. E. T. Aitchison, 389, 3.5.1885 (CAL).

Silene conoidea L.

Specimen No. 1. *Dardiri*

Harbul Hills, Baluchistan.
Fruit is eaten by man.
R. Hughes, 19510, 27.5.1903 (CAL).

Specimen No. 2. *Gardi*

Masting Kalat, Baluchistan.
Fodder for cattle
R. Hughes, 17168 (CAL).

Stellaria kotschyana Fenzl. *Bang*

Hindu Bagh, Baluchistan.
Fodder for camel and sheep.
R. Hughes, 19889, 2.10.1903 (CAL).

Vaccaria pyramidata Medic. *Musna*
Manbhum, Bengal & Bihar border
Seeds yield a useful oil.
J. Campbell s.n. 38296 (CAL).

APOCYNACEAE

Alstonia scholaris (L.) R. Br.
Lakhimpur District, Assam.
Young leaves are worn by Nanna children (Sadiya village) for bowel complaints.
H. G. Carter, 385, 27.10.1915 (ISIM).

Apocynum hendersonii Hook.f.
Pusa, Bengal
Fibre plant.
R. S. Finlow, 26948, 22.4.1907 (ISIM).

Ecdysanthera micrantha A. DC. *Bon-lota*
Assam
Rubber producer.
E. Thurston s.n. 1882 (ISIM).

Tabernaemontana coronaria R. Br. *Salat*
Naya Village, East of Pi-Choung
Used for making cakes of yeast for brewing rice beer.
I. H. Burkill, 27961, 5.1.1907 (ISIM).

T. heyneana Wall.

Specimen No. 1. *Nagun Kura*
Amboli, West of Belgaum
Bark as a medicine in fever.
I. H. Burkill, 17012, 16.11.1902 (ISIM).

Specimen No. 2. *Titul*
Peninsular India
The hillmen use decoction of the leaves to cure sores on the teats of their cows.
J. Campbel, 40 (CAL).

Leuconotis griffithii Hook. f.
Larut, Perak, Malay Archipelago
Contains a good deal of gutta.
King's collector, 3080, June, 1882 (CAL).

Melodinus khasianus Hook.f. *Shobrab*
Mosmai, Cherrapunji, (Khasia Hills)
Fruits when ripe are eaten.
R. K. Das, 34955, 2.6.1911 (CAL).

Wrightia tinctoria R. Br. *Khirni*
Rajpootana, U. India
Wood used for lacwork.
R.E.P. s.n. 1896 (ISIM).

ASCLEPIADACEAE

Boucerosia hitchinia Decne. *Cheta Kommu, Kaadalu*
Savarah hills (S. India)
Used for medicine.
H. Y. Corey & Rama Murti, 79 (ISIM).

Calotropis acia Buch.-Ham.
Barkuda, (S. India)
Eaten by deer.
N. Annandale, 1346, 28. 10. 1919 (CAL).

Ceropegia parchganiensis Blatt. et McC.
Ambavane, Poona District, Maharashtra State
Tubers are eaten.
V. V. Reddi, 99165, 10.9.1964 (CAL).

Hemidesmus indicus (L.) R. Br. *Dudhi*
Simla, Punjab
Used by the Pahari as snuff.
A. Blyth, 68, 8.10.1894 (ISIM).

Marsdenia tenacissima W. & A. *Mohorasa*
Kandia, Central India
The root pounded, mixed and given internally with 1/16th of a seer of water cures asthma and cough.
R.E.P. 34, 14.5.1898 (ISIM).

Pentatropis cynanchoides R. Br. *Lepang Koree, Uplang Koreclu.*
From the neighbourhood of Madras
Useful for diarrhoea.
R. K. Das, 34405, 15.7.1910 (ISIM).

Pergularia daemia (Forsk.) Cheiov. *Akohro*
Las Bela, Baluchistan.
Fodder for camels and deer.
R. H. Buller, 18745 (ISIM).

P. pallida W. & A.

Specimen No. 1. *Jhiti, Mauwee*
Ajmere
a) Flower and pod eaten by the natives as kind of vegetable.
b) Root of this plant is said to be used for making tooth brushes.
49, 20.7.1874 (CAL).

Specimen No. 2. *Palakodu, Pala Ku*
Madras
Useful for cough.
R. K. Das, 34431, 17.7.1910 (CAL).

Periploca aphylla Decne

Specimen No. 1. *Khirwal khap*
Las Bela, Baluchistan
Boatmen apply its juice to the fishing string to make it strong.
R. H. Buller, 18709 (ISIM).

Specimen No. 2. *Barar* Kohan, Baluchistan.
Wood burnt and ashes mixed with snuff.
R. H. Buller, 19424 (ISIM).

Tylophora indica (N. Burm.) Merr. *Mendi*
Puri, Orissa.
Whole plant is heated and applied in wounds.
H. G. Carter, 7.6.1916 (ISIM).

T. fasciculata Ham. ex Wight *Peetlajee*
Undari, Central India.
Root pounded mixed with water is given internally to a patient suffering from measles (small pox).
R.E.P. 12, 14.5.1898 (ISIM).

SOLANACEAE

Solanum cornigerum Andre. *Kha-Yan*
Burma, Northern Shun State.
Wild brinjal which are said to be poisonous.
R.E.P. 22418. 19.1.1904 (ISIM).

S. crassipetalum Wall.
Himalaya East, Rungbe Valley about 2500 ft.
Used by the Lepchas for food and mouth diseases of cattle.
13116, 14.10.1971 (CAL).

S. indicum L.

Specimen No. 1. *Dolri or Khadi Ringni.*
Ghoda, Central India.
Inner dust of the flower mixed with ajawan is given to cure cough.
R.E.P. 28, (ISIM).

Specimen No. 2. *Didi, Bhar, Bahar*
Las Bella, Baluchistan.
Fruit is like lemon. Juice is used for making curd.
R.E.P. 18773, (ISIM).

Specimen No. 3. *Didi, Bhar, Bahar*
Baluchistan Sethari
Fruit is used for making cheese.
R. H. Buller, 1730, 18.6.1903 (ISIM).

Specimen No. 4. *Didi, Bhar, Bahar.*
Himalaya, N. W.
A drop or two in milk make it into cheese
315993, (ISIM).

S. kurzii Brace
Kupputo Tuting, Arunachal Pradesh.
Ripe fruits edible
R. S. Rao, 17586, 12.11.58 (CAL).

S. macrodon Wall.
Tserra, 4,000 ft., Assam.
Sacred wood.
May be *Clarke's* collection, 7230, 3.5.1868 (CAL).

S. nigrum L. *Pakoh, Karejgi, Makko Makiza.*
Madras, Peninsular India & Ceylon.
Washerman Pettah.
1, Herb. Hort. 76, (CAL).

S. spirale Roxb. *Bagua, Mungas Kajur*
Naga Hills, Assam, 5000 ft.
Cultivated in Naga villages. Leaf and fruit are eaten like Capsicum.
G. Watt, 6343, 8.4.1882 (CAL).

S. torvum Swartz *Beretee Baigon, Inyobyit kyan.*

Tirap F.O. (NEFA), Nampong to Pangsupass. Fruits used as a medicine for stomach disorders.
G. K. Murthy, 13001, 18.3.1958 (CAL).

S. trilobatum L.

Specimen No. 1. *Usti*

Nidadavale-Jeelugumilli, Godavari Dist., A.P. Fruits edible and medicinal.
D. C. S. Raju 291 (CAL).

Specimen No. 2. *Uchinta*

Raja mundri, Northern Circars, S. India. Fruits used for curries.
I. H. Burkill 17849, 6.12.1902 (ISIM).

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